116TH CONGRESS
1ST SESSION

S. _____

To amend the Public Utility Regulatory Policies Act of 1978 to assist States in adopting updated interconnection procedures and tariff schedules and standards for supplemental, backup, and standby power fees for projects for combined heat and power technology and waste heat to power technology, and for other purposes.

IN THE SENATE OF THE UNITED STATES

Mrs. SHAHEEN introduced the following bill; which was read twice and referred to the Committee on _____

A BILL

To amend the Public Utility Regulatory Policies Act of 1978 to assist States in adopting updated interconnection procedures and tariff schedules and standards for supplemental, backup, and standby power fees for projects for combined heat and power technology and waste heat to power technology, and for other purposes.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,

SECTION 1. SHORT TITLE.

This Act may be cited as the ''Heat Efficiency through Applied Technology Act'' or the ''HEAT Act''.

SEC. 2. FINDINGS.

Congress finds that—

(1) combined heat and power technology, also known as cogeneration, is a technology that efficiently produces electricity and thermal energy at the point of use of the technology;

(2) by combining the provision of both electricity and thermal energy in a single step, combined heat and power technology makes significantly more efficient use of fuel compared to separate generation of heat and power, which has significant economic and environmental advantages;

(3) waste heat to power is a technology that captures heat discarded by an existing industrial process and uses that heat to generate power with no additional fuel and no incremental emissions, reducing the need for electricity from other sources and the grid, and any associated emissions;

(4) waste heat or waste heat to power is considered renewable energy in 17 States;

(5)(A) a 2012 joint report by the Department of Energy and the Environmental Protection Agency estimated that by achieving the national goal outlined in Executive Order 13624 (77 Fed. Reg. 54779) (September 5, 2012) of deploying 40 gigawatts of new combined heat and power tech-

nology by 2020, the United States would increase the total combined heat and power capacity of the United States by 50 percent in less than a decade; and

(B) additional efficiency would—

(i) save 1,000,000,000,000,000 BTUs of energy; and

(ii) reduce emissions by 150,000,000 metric tons of carbon dioxide annually, a quantity equivalent to the emissions from more than 25,000,000 cars;

(6) a 2012 report by the Environmental Protection Agency estimated the amount of waste heat available at a temperature high enough for power generation from industrial and nonindustrial applications represents an additional 10 gigawatts of electric generating capacity on a national basis;

(7) distributed energy generation, including through combined heat and power technology and waste heat to power technology, has ancillary benefits, such as—

(A) removing load from the electricity distribution grid; and

(B) improving the overall reliability of the electricity distribution system; and

(8)(A) a number of regulatory barriers impede broad deployment of combined heat and power technology and waste heat to power technology; and

(B) a 2008 study by Oak Ridge National Laboratory identified interconnection issues, regulated fees and tariffs, and environmental permitting as areas that could be streamlined with respect to the provision of combined heat and power technology and waste heat to power technology.

SEC. 3. DEFINITIONS.

(a) IN GENERAL.—In this Act:

(1) COMBINED HEAT AND POWER TECHNOLOGY.—The term ''combined heat and power technology'' means the generation of electric energy and heat in a single, integrated system that meets the efficiency criteria in clauses (ii) and (iii) of section 48(c)(3)(A) of the Internal Revenue Code of 1986, under which heat that is conventionally rejected is recovered and used to meet thermal energy requirements.

(2) OUTPUT-BASED EMISSION STANDARD.—The term ''output-based emission standard'' means a standard that relates emissions to the electrical, thermal, or mechanical productive output of a device

or process rather than the heat input of fuel burned or pollutant concentration in the exhaust.

(3) QUALIFIED WASTE HEAT RESOURCE.—

(A) IN GENERAL.—The term ''qualified waste heat resource'' means—

(i) exhaust heat or flared gas from any industrial or commercial process;

(ii) waste gas or industrial tail gas that would otherwise be flared, incinerated, or vented;

(iii) a pressure drop in any gas for an industrial or commercial process; or

(iv) any other form of waste heat resource as the Secretary may determine.

(B) EXCLUSION.—The term ''qualified waste heat resource'' does not include a heat resource from a process the primary purpose of which is the generation of electricity using a fossil fuel.

(4) WASTE HEAT TO POWER TECHNOLOGY.—The term ''waste heat to power technology'' means a system that generates electricity through the recovery of a qualified waste heat resource.

(b) PURPA DEFINITIONS.—Section 3 of the Public Utility Regulatory Policies Act of 1978 (16 U.S.C. 2602) is amended by adding at the end the following:

''(22) COMBINED HEAT AND POWER TECHNOLOGY.—The term 'combined heat and power technology' means the generation of electric energy and heat in a single, integrated system that meets the efficiency criteria in clauses (ii) and (iii) of section 48(c)(3)(A) of the Internal Revenue Code of 1986, under which heat that is conventionally rejected is recovered and used to meet thermal energy requirements.

''(23) QUALIFIED WASTE HEAT RESOURCE.—

''(A) IN GENERAL.—The term 'qualified waste heat resource' means—

''(i) exhaust heat or flared gas from any industrial process;

''(ii) waste gas or industrial tail gas that would otherwise be flared, incinerated, or vented;

''(iii) a pressure drop in any gas for an industrial or commercial process; or

''(iv) any other form of waste heat resource as the Secretary may determine.

''(B) EXCLUSION.—The term 'qualified waste heat resource' does not include a heat resource from a process the primary purpose of which is the generation of electricity using a fossil fuel.

''(24) WASTE HEAT TO POWER TECHNOLOGY.—The term 'waste heat to power technology' means a system that generates electricity through the recovery of a qualified waste heat resource.''.

SEC. 4. UPDATED INTERCONNECTION PROCEDURES AND TARIFF SCHEDULE.

(a) ADOPTION OF STANDARDS.—Section 111(d) of the Public Utility Regulatory Policies Act of 1978 (16 U.S.C. 2621(d)) is amended by adding at the end the following:

''(20) UPDATED INTERCONNECTION PROCEDURES AND TARIFF SCHEDULE.—

''(A) IN GENERAL.—Not later than 1 year after the date of enactment of this paragraph, the Secretary, in consultation with the Commission and other appropriate agencies, shall establish, for generation with nameplate capacity up to 20 megawatts using all fuels—

''(i) guidance for technical interconnection standards that ensure inter-

operability with existing Federal interconnection rules;

"(ii) model interconnection procedures, including appropriate fast track procedures; and

"(iii) model rules for determining and assigning interconnection costs.

"(B) STANDARDS.—The standards established under subparagraph (A) shall, to the maximum extent practicable, reflect current best practices (as demonstrated in model codes and rules adopted by States) to encourage the use of distributed generation (such as combined heat and power technology and waste heat to power technology) while ensuring the safety and reliability of the interconnected units and the distribution and transmission networks to which the units connect.

"(C) VARIATIONS.—In establishing the model standards under subparagraph (A), the Secretary shall consider the appropriateness of using standards or procedures that vary based on unit size, fuel type, or other relevant characteristics.".

(b) COMPLIANCE.—

(1) TIME LIMITATIONS.—Section 112(b) of the Public Utility Regulatory Policies Act of 1978 (16 U.S.C. 2622(b)) is amended by adding at the end the following:

''(7)(A) Not later than 90 days after the date on which the Secretary completes the standards required under section 111(d)(20), each State regulatory authority (with respect to each electric utility for which the authority has ratemaking authority) shall commence the consideration referred to in that section, or set a hearing date for such consideration, with respect to each standard.

''(B) Not later than 2 years after the date on which the Secretary completes the standards required under section 111(d)(20), each State regulatory authority (with respect to each electric utility for which the authority has ratemaking authority) shall—

''(i) complete the consideration under subparagraph (A);

''(ii) make the determination referred to in section 111 with respect to each standard established under section 111(d)(20); and

''(iii) submit to the Secretary and the Commission a report detailing the updated

plans of the State regulatory authority for interconnection procedures and tariff schedules that reflect best practices to encourage the use of distributed generation.''.

(2) FAILURE TO COMPLY.—Section 112(c) of the Public Utility Regulatory Policies Act of 1978 (16 U.S.C. 2622(c)) is amended by adding at the end the following: ''In the case of each standard established under paragraph (20) of section 111(d), the reference contained in this subsection to the date of enactment of this Act shall be deemed to be a reference to the date of enactment of that paragraph.''.

(3) PRIOR STATE ACTIONS.—

(A) IN GENERAL.—Section 112 of the Public Utility Regulatory Policies Act of 1978 (16 U.S.C. 2622) is amended by adding at the end the following:

''(g) PRIOR STATE ACTIONS.—Subsections (b) and (c) shall not apply to a standard established under paragraph (20) of section 111(d) in the case of any electric utility in a State if, before the date of enactment of this subsection—

''(1) the State has implemented for the electric utility the standard (or a comparable standard);

''(2) the State regulatory authority for the State has conducted a proceeding after December 31, 2016, to consider implementation of the standard (or a comparable standard) for the electric utility; or

''(3) the State legislature has voted on the implementation of the standard (or a comparable standard) for the electric utility.''.

(B) CROSS-REFERENCE.—Section 124 of the Public Utility Regulatory Policies Act of 1978 (16 U.S.C. 2634) is amended by adding at the end the following: ''In the case of each standard established under paragraph (20) of section 111(d), the reference contained in this subsection to the date of enactment of this Act shall be deemed to be a reference to the date of enactment of that paragraph.''.

SEC. 5. SUPPLEMENTAL, BACKUP, AND STANDBY POWER FEES OR RATES.

(a) ADOPTION OF STANDARDS.—Section 111(d) of the Public Utility Regulatory Policies Act of 1978 (16 U.S.C. 2621(d)) (as amended by section 4(a)) is amended by adding at the end the following:

''(21) SUPPLEMENTAL, BACKUP, AND STANDBY POWER FEES OR RATES.—

"(A) IN GENERAL.—Not later than 1 year after the date of enactment of this paragraph, the Secretary, in consultation with the Commission and other appropriate agencies, shall establish model rules and procedures for determining fees or rates for supplementary power, backup or standby power, maintenance power, and interruptible power supplied to facilities that operate combined heat and power technology and waste heat to power technology that appropriately allow for adequate cost recovery by an electric utility but are not excessive.

"(B) FACTORS.—In establishing model rules and procedures for determining fees or rates described in subparagraph (A), the Secretary shall consider—

"(i) the best practices that are used to model outage assumptions and contingencies to determine the fees or rates;

"(ii) the appropriate duration, magnitude, or usage of demand charge ratchets;

"(iii) the benefits to the utility and ratepayers, such as increased reliability, fuel diversification, enhanced power qual-

ity, and reduced electric losses from the use of combined heat and power technology and waste heat to power technology by a qualifying facility; and

''(iv) alternative arrangements to the purchase of supplementary, backup, or standby power by the owner of combined heat and power technology and waste heat to power technology generating units if the alternative arrangements—

''(I) do not compromise system reliability; and

''(II) are nondiscretionary and nonpreferential.''.

(b) COMPLIANCE.—

(1) TIME LIMITATIONS.—Section 112(b) of the Public Utility Regulatory Policies Act of 1978 (16 U.S.C. 2622(b)) (as amended by section 4(b)(1)) is amended by adding at the end the following:

''(8)(A) Not later than 90 days after the date on which the Secretary completes the standards required under section 111(d)(21), each State regulatory authority (with respect to each electric utility for which the authority has ratemaking authority) shall commence the consideration referred to in that

section, or set a hearing date for such consideration, with respect to each standard.

''(B) Not later than 2 years after the date on which the Secretary completes the standards required under section 111(d)(21), each State regulatory authority (with respect to each electric utility for which the authority has ratemaking authority) shall—

''(i) complete the consideration under subparagraph (A);

''(ii) make the determination referred to in section 111 with respect to each standard established under section 111(d)(21); and

''(iii) submit to the Secretary and the Commission a report detailing the updated plans of the State regulatory authority for supplemental, backup, and standby power fees that reflect best practices to encourage the use of distributed generation.''.

(2) FAILURE TO COMPLY.—Section 112(c) of the Public Utility Regulatory Policies Act of 1978 (16 U.S.C. 2622(c)) (as amended by section 4(b)(2)) is amended by adding at the end the following: ''In the case of each standard established under paragraph (21) of section 111(d), the reference con-

tained in this subsection to the date of enactment of this Act shall be deemed to be a reference to the date of enactment of that paragraph.''

(3) PRIOR STATE ACTIONS.—

(A) IN GENERAL.—Section 112 of the Public Utility Regulatory Policies Act of 1978 (16 U.S.C. 2622) (as amended by section 4(b)(3)(A)) is amended by adding at the end the following:

''(h) PRIOR STATE ACTIONS.—Subsections (b) and (c) shall not apply to a standard established under paragraph (21) of section 111(d) in the case of any electric utility in a State if, before the date of enactment of this subsection—

''(1) the State has implemented for the electric utility the standard (or a comparable standard);

''(2) the State regulatory authority for the State has conducted a proceeding after December 31, 2016, to consider implementation of the standard (or a comparable standard) for the electric utility; or

''(3) the State legislature has voted on the implementation of the standard (or a comparable standard) for the electric utility.''.

(B) CROSS-REFERENCE.—Section 124 of the Public Utility Regulatory Policies Act of 1978 (16 U.S.C. 2634) (as amended by section 4(b)(3)(B)) is amended by adding at the end the following: ''In the case of each standard established under paragraph (21) of section 111(d), the reference contained in this subsection to the date of enactment of this Act shall be deemed to be a reference to the date of enactment of that paragraph.''.

SEC. 6. UPDATING OUTPUT-BASED EMISSIONS STANDARDS.

(a) ESTABLISHMENT.—The Administrator of the Environmental Protection Agency (referred to in this section as the ''Administrator'') shall establish a program under which the Administrator shall provide to each State (as defined in section 302 of the Clean Air Act (42 U.S.C. 7602)) that elects to participate and that submits an application under subsection (b) a grant for use by the State in accordance with subsection (c).

(b) APPLICATION.—To be eligible to receive a grant under this section, a State shall submit to the Administrator an application at such time, in such manner, and containing such information as the Administrator may require.

(c) USE OF FUNDS.—

(1) IN GENERAL.—A State shall use a grant provided under this section—

(A) to update any applicable State or local air permitting regulations under the Clean Air Act (42 U.S.C. 7401 et seq.) to incorporate environmental regulations relating to output-based emissions standards in accordance with relevant guidelines developed by the Administrator under paragraph (2); or

(B) if the State has already updated all applicable State and local permitting regulations to incorporate those output-based emissions standards, to expedite the processing of relevant power generation permit applications under the Public Utility Regulatory Policies Act of 1978 (16 U.S.C. 2601 et seq.).

(2) GUIDELINES.—As soon as practicable after the date of enactment of this Act, the Administrator shall publish guidelines for updating State and local permitting regulations under the Clean Air Act (42 U.S.C. 7401 et seq.) that—

(A) provide credit, in the calculation of the emission rate of the facility, for any thermal energy produced by combined heat and power

technology or waste heat to power technology; and

(B) apply only to generation units that produce 5 megawatts of electrical energy or less.

(d) MAXIMUM AMOUNT.—The amount of a grant provided under this section shall not exceed $100,000.

(e) AUTHORIZATION OF APPROPRIATIONS.—There is authorized to be appropriated to the Administrator to carry out this section $5,000,000.